We Claim:

1. An isolated KLK-L1, KLK-L2, KLK-L3, KLK-L4, KLK-L5, or KLK-L6 nucleic acid molecule of at least 30 nucleotides which hybridizes to SEQ ID NO. 1, 13, 21, 43, 56, or 65, respectively, or the complement of SEQ ID NO. 1, 13, 21, 43, 56, or 65, under stringent hybridization conditions

2. An isolated nucleic acid molecule which comprises:
   (i) a nucleic acid sequence encoding a protein having substantial sequence identity with an amino acid sequence of a KLK-L1, KLK-L2, KLK-L3, KLK-L4, KLK-L5, or KLK-L6 protein as shown in SEQ.ID.NO. 2, 3, 14, 22, 23, 44, 45, 57, 58, 59, 60, 66, or 67, respectively;
   (ii) a nucleic acid sequence encoding a protein comprising an amino acid sequence of a KLK-L1, KLK-L2, KLK-L3, KLK-L4, KLK-L5, or KLK-L6 protein as shown in SEQ.ID.NO. 2, 3, 14, 22, 23, 44, 45, 57, 58, 59, 60, 66, or 67, respectively;
   (iii) nucleic acid sequences complementary to (i);
   (iv) a degenerate form of a nucleic acid sequence of (i);
   (v) a nucleic acid sequence capable of hybridizing under stringent conditions to a nucleic acid sequence in (i), (ii) or (iii);
   (vi) a nucleic acid sequence encoding a truncation, an analog, an allelic or species variation of a protein comprising an amino acid sequence of a KLK-L1, KLK-L2, KLK-L3, KLK-L4, KLK-L5, or KLK-L6 protein as shown in SEQ.ID.NO. 2, 3, 14, 22, 23, 44, 45, 57, 58, 59, 60, 66, or 67, respectively; or
   (vii) a fragment, or allelic or species variation of (i), (ii) or (iii).

3. A purified and isolated nucleic acid molecule of the invention comprises:
   (i) a nucleic acid sequence comprising the sequence of SEQ.ID.NO. 1, 13, 21, 43, 56, or 65 wherein T can also be U;
   (ii) nucleic acid sequences complementary to (i), preferably complementary to the full nucleic acid sequence of SEQ.ID.NO. 1, 13, 21, 43, 56, or 65;
   (iii) a nucleic acid capable of hybridizing under stringent conditions to a nucleic acid of (i) or (ii) and preferably having at least 18 nucleotides; or
   (iv) a nucleic acid molecule differing from any of the nucleic acids of (i) to (iii) in codon sequences due to the degeneracy of the genetic code.

4. An isolated nucleic acid molecule which encodes a protein which binds an antibody of a KLK-L1, KLK-L2, KLK-L3, KLK-L4, KLK-L5, or KLK-L6 protein.

5. A regulatory sequence of an isolated nucleic acid molecule as claimed in any of the preceding claims fused to a nucleic acid which encodes a heterologous protein.

6. A vector comprising a nucleic acid molecule of any of the preceding claims.

7. A host cell comprising a nucleic acid molecule of any of the preceding claims.

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8. An isolated KLK-L1 protein comprising an amino acid sequence of SEQ. ID. NO. 2 or 3.
9. An isolated KLK-L2 protein comprising an amino acid sequence of SEQ. ID. NO. 14.
10. An isolated KLK-L3 protein comprising an amino acid sequence of SEQ. ID. NO. 22 or 23.
11. An isolated KLK-L4 protein comprising an amino acid sequence of SEQ. ID. NO. 44 or 45.
12. An isolated KLK-L5 protein comprising an amino acid sequence of SEQ. ID. NO. 57, 58, 59, or 60.
13. An isolated KLK-L6 protein comprising an amino acid sequence of SEQ. ID. NO. 66 or 67.
14. An isolated protein having at least 65% amino acid sequence identity to an amino acid sequence of SEQ. ID. NO. 2, 3, 14, 22, 23, 44, 45, 57, 58, 59, 60, 66, or 67.
15. A method for preparing a protein as claimed in any of the preceding claimd comprising:
    (a) transferring a vector as claimed in claim 6 into a host cell;
    (b) selecting transformed host cells from untransformed host cells;
    (d) culturing a selected transformed host cell under conditions which allow expression of the protein; and
    (e) isolating the protein.

SUB B

16. A protein prepared in accordance with the method of claim 15.
17. An antibody having specificity against an epitope of a polypeptide as claimed in claim 8, 9, 10, 11, 12, or 13.

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18. An antibody as claimed in claim 17 labeled with a detectable substance and used to detect the protein in biological samples, tissues, and cells.
19. A probe comprising a sequence encoding a protein as claimed in claim 8, 9, 10, 11, 12, or 13, or a part thereof.
20. A method of diagnosing and monitoring conditions mediated by a protein as claimed in claim 8, 9, 10, 11, 12, or 13, by determining the presence of a nucleic acid molecule encoding the protein as claimed in any of the preceding claims or determining the presence of the protein.

SUB B5

21. A method as claimed in claim 20 wherein the condition is cancer.
22. A method for identifying a substance which associates with a protein as claimed in claim 8, 9, 10, 11, 12, or 13 comprising (a) reacting the protein with at least one substance which potentially can associate with the protein, under conditions which permit the association between the substance and protein, and (b) removing or detecting protein associated with the substance, wherein detection of associated protein and substance indicates the substance associates with the prtoein.
23. A method for evaluating a compound for its ability to modulate the biological activity of a protein as claimed in claim 8, 9, 10, 11, 12, or 13 comprising providing a known concentration of the protein with a substance which associates with the protein and a test compound under conditions which permit the formation of complexes between the substance and protein, and removing and/or detecting complexes.

SUB B6

24. A method for detecting a nucleic acid molecule encoding a protein comprising an amino acid sequence of SEQ. ID. NO. 2, 3, 14, 22, 23, 44, 45, 57, 58, 59, 60, 66, or 67 in a biological sample comprising the steps of:

(a) hybridizing a nucleic acid molecule of claim 2 to nucleic acids of the biological sample, thereby forming a hybridization complex; and

(b) detecting the hybridization complex wherein the presence of the hybridization complex correlates with the presence of a nucleic acid molecule encoding the protein in the biological sample.

25. A method as claimed in claim 24 wherein nucleic acids of the biological sample are amplified by the polymerase chain reaction prior to the hybridizing step.

26. A method for treating a condition mediated by a protein as claimed in claim 8, 9, 10, 11, 12, or 13 comprising administering an effective amount of an antibody as claimed in claim 17 or a substance or compound identified in accordance with a method claimed in claim 22 or 23.

SUB B7

27. A method as claimed in claim 26 wherein the condition is cancer.

28. A composition comprising one or more of a nucleic acid molecule or protein claimed in any of the preceding claims, or a substance or compound identified using a method as claimed in any of the preceding claims, and a pharmaceutically acceptable carrier, excipient or diluent.

29. Use of one or more of a nucleic acid molecule or protein claimed in any of the preceding claims, or a substance or compound identified using a method as claimed in any of the preceding claims in the preparation of a pharmaceutical composition for treating a condition mediated by a protein as claimed in any of the preceding claims.

30. A transgenic non-human mammal which does not express a KLK-L1, KLK-L2, KLK-L3, KLK-L4, KLK-L5, or KLK-L6 protein as claimed in claim 8, 9, 10, 11, 12, or 13, respectively, resulting in a KLK-L1, KLK-L2, KLK-L3, KLK-L4, KLK-L5, or KLK-L6 protein associated pathology, respectively.

31. A transgenic animal assay system which provides a model system for testing for an agent that reduces or inhibits an a KLK-L1, KLK-L2, KLK-L3, KLK-L4, KLK-L5, or KLK-L6 protein associated pathology comprising

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(a) administering the agent to a transgenic non-human animal as claimed in claim 26; and

(b) determining whether said agent reduces or inhibits a KLK-L1, KLK-L2, KLK-L3, KLK-L4, KLK-L5, or KLK-L6 protein associated pathology in the transgenic non-human animal relative to a transgenic non-human animal of step (a) which has not been administered the agent.

ADD B9 add C1